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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* THOMAS LEUCHT  
and HANNES OBERNOSTERER

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Appeal 2009-003896  
Application 10/538,871  
Technology Center 1700

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Before MICHAEL P. COLAIANNI, EDWARD C. KIMLIN, and  
ADRIENE LEPIANE HANLON, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

This is a decision on an appeal under 35 U.S.C. § 134 from the  
Examiner's final rejection of claims 1 through 9 and 14 through 16, which are

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

all of the claims pending in the above-identified application. We have jurisdiction pursuant to 35 U.S.C. § 6.

We REVERSE.

#### STATEMENT OF THE CASE

The subject matter on appeal is directed to an intumescent body. Claim 1 is illustrative:

1. An intumescent body comprising:  
a non-intumescent polymer material providing a form of the body; and  
a substantially transparent coating mass applied to a surface of the polymer material, the coating mass comprising:  
25 to 95 weight % of an aqueous dispersion containing polyurethane or polyacrylate;  
0.5 to 10 weight % of an isocyanate or a melamine-formaldehyde; and  
3 to 15 weight % of ammonium polyphosphate as a flame retarding agent;

wherein the coating mass, together with the polymer material, results in an intumescent system, in which during a fire, the coating mass penetrates an interior of the polymer material creating with an aid of the polymer material, which provides an essential share of a carbon-donor component of the intumescent system, a flame extinguishing foam.

The Examiner maintains the following rejections:

- 1) Claims 1-9, 15, and 16<sup>2</sup> under 35 U.S. C. § 103(a) as unpatentable over Nozaki (US 6,248,820 B1, issued Jun. 19, 2001) and Marx (US 4,774,268, issued Sep. 27, 1988); and
- 2) Claim 14 under 35 U.S.C. § 103(a) as unpatentable over Nozaki and Marx, and further in view of Maples (US 6,284,343 B1, issued Sep. 4, 2001).

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<sup>2</sup> We note that Appellants' inadvertent omission of claim 15 made at page 5 of the Appeal Brief is harmless error. (*See* Reply Br. 1 and Ans. 3).

*REJECTION (1)*

ISSUE

Did the Examiner err in determining that the combined teachings of Nozaki and Marx would have rendered obvious an intumescent body comprising, *inter alia*, the "substantially transparent coating mass" feature required by claim 1 within the meaning of § 103? We decide this issue in the affirmative.

FINDINGS OF FACT

1. The Specification discloses that

[c]ontrary to the state of technology, the components of the intumescent system are no longer exclusively contained in a substance or a mass with intumescent properties. An essential share of the carbon necessary for the flame retarding effect according to the intumescence principle is provided by the polymer material coated with the coating mass. Due to this, the separate addition of a carbon-donor component to the coating mass is not necessary. Such a coating mass without carbon-donor component can be made with excellent transparency.

(Spec. 3, ll. 14-23).

2. Nozaki teaches that its flame retardant coating comprises, *inter alia*, red phosphorus, ammonium polyphosphate, an aqueous solution of an ethylene-vinyl acetate copolymer, an aqueous dispersion of an α-olefin copolymer, an aqueous dispersion of a polyurethane, and a resin. (Nozaki, col. 3, l. 35 to col. 4, l. 42).
3. Nozaki further teaches that

red phosphorus is bonded to oxygen to become an oxide which is further bonded to water to become condensation phosphoric acid. A film made from a mixture of carbon and condensation phosphoric acid formed on the surface of the resin becomes an oxygen impermeable layer on the surface of the resin, suppresses the combustion of the resin and makes the resin flame resistant. . . . The ammonium polyphosphate compound promotes the carbonization of the ethylene-vinyl acetate copolymer.

(Nozaki, col. 5, l. 62 to col. 6, l. 25).

#### PRINCIPLE OF LAW

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

#### ANALYSIS AND CONCLUSION

The Examiner states that "Nozaki expressly states at column 4, lines 58-67 that the red phosphorous that is provided may provide a strong red tint if too much is used. This at least implies that the coating is transparent." (Ans. 4). As an alternative rationale, the Examiner states that "it would have been obvious to a person having ordinary skill in the art to do so [i.e., provide a substantially transparent coating] in order to be able to view the underlying substrate." (Ans. 4).

In response to the Examiner's statement (Ans. 4) that a strong red tint "at least implies that the coating is transparent," Appellants argue that "[t]he material/substance which is tinted can be opaque and there is nothing to substantiate the assertion that it would infer transparency." (Reply Br. 4; *see* Ans. 4). In addition, in response to the Examiner's statement that it would have

been obvious to modify Nozaki's coating to be transparent, Appellants argue that "[t]he Examiner's position is nothing more than an unsubstantiated conclusion motivated by apparently nothing more than the claims at issue." (Reply Br. 4; *see* Ans. 4). We agree with both of Appellants' arguments.

While Nozaki at column 4, line 66 teaches that its product "may have a strong red tint," we cannot agree with the Examiner that this teaching, alone, *implies* that Nozaki's coating is transparent. In this regard, as Appellants correctly point out, "the material/substance which is tinted [may] . . . be opaque." (Reply Br. 4). This is especially true in this case since Nozaki teaches that its tint may be "strong."

The Examiner simply provides no reasonable basis to support the finding that Nozaki's coating has the substantially transparent characteristic required by claim 1.

Indeed, as Appellants' correctly point out at pages 8 and 9 of the Appeal Brief, unlike Appellants' disclosure (FF 1), which states that "a coating mass *without* [a] carbon-donor component can be made with excellent transparency," Nozaki teaches that its flame retardant coating *includes* ingredients (e.g., ethylene-vinyl acetate copolymer) that provide the carbon necessary for the flame retarding effect. (FF 1-3) (emphasis added).

With respect to the Examiner's alternative rationale, while the Examiner states (Ans. 4) that "it would have been obvious to a person having ordinary skill in the art to do so [i.e., provide a substantially transparent coating] in order to be able to view the underlying substrate," the Examiner does not direct us to any credible evidence or articulate any persuasive reason to support the determination that it would have been obvious to employ a transparent coating.

Indeed, the Examiner's statement is merely an unsupported conclusory statement.

Thus, it follows that the Examiner erred in determining that the combined teachings of Nozaki and Marx would have rendered obvious an intumescent body comprising, *inter alia*, the "substantially transparent coating mass" feature required by claim 1 within the meaning of § 103.

Accordingly, for the reasons stated by Appellants in the Briefs and above, we reverse the Examiner's rejection (1).

#### REJECTION (2)

The Examiner relies on the same factual findings and determinations discussed above to meet the disputed feature of independent claim 1 and does not provide any additional findings or determinations as to how Maples would have satisfied the disputed claim feature. Therefore, for the reasons stated above, we reverse the Examiner's decision to reject claim 14 stated in rejection (2).

#### ORDER

In summary, we reverse the Examiner's decision to reject the claims stated in rejections (1) and (2).

Accordingly, the Examiner's decision is reversed.

#### REVERSED

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Appeal 2009-003896  
Application 10/538,871

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